

WINTER 2018

PLUS.



William Adams 

WELCOME

Thanks to the support of our very loyal customers and the continued effort of our employees, the Elphinstone/William Adams Group has grown to where we have combined sales in excess of \$1.3B and employ over 2,400 people.

The responsibility for the long term management of an organisation of this size and scope, takes thoughtful planning. Since 2011, the immediate members of our Elphinstone family, along with members of our Executive Management team, have been participating in Continuity Planning Workshops to develop and continually evolve a robust plan for the ongoing management, ownership and control of the Group.

The key objective of this planning process is to ensure we have a suitable intergenerational transition by the year 2020. While I will remain the Dealer Principal of William Adams and Non Executive Chairman of the Elphinstone Group and still hope to make a meaningful contribution after that time, we have been transitioning the primary executive responsibilities to the existing and next generation of management personnel during this period. The changes which have resulted from this process over the past 7 years, demonstrate we are moving forward. Some of these are as follows:

- Eddy Kontelj has been appointed Managing Director of William Adams.
- Adam Elphinstone has been appointed as General Manager – Product Support at William Adams.
- Kelly Elphinstone has moved into the Managing Director role at Elphinstone Pty Ltd.
- Kelly and Adam Elphinstone have joined the Elphinstone Group Executive Management Committee.
- We continue to work on professional development plans for the Executive Management Committee members.
- We continue to review and update our strategic plan, which includes growth strategies and the rationalisation of underperforming businesses. This means “to stop doing things”. This has included the sale of NovaPower in December 2017 and the wind up or sale of Max Hire, Apac and Exergen (all nearing completion).
- Next steps include the establishment of an official “Advisory Board” for the Elphinstone Group which will allow for the eventual seamless transition of the decision making process from Dale to the Advisory Board.

We are on track to meet our objectives and are exceeding some of our planned milestones.

While the future ownership and ultimate control of the Group will remain with the Elphinstone family, we are committed to ensuring we retain the most astute and proficient Executive Management team to lead the Group into the future.

The evolution of management and control is a natural and necessary process for all organisations and with continued focus we intend to ensure ours is a smooth and well executed transition.

We felt this was also an opportune time to provide an update in regard to my health challenges. Many of you may be aware that I was diagnosed with renal cancer in late 2017. I commenced immunotherapy treatment in late 2017 and while a recent scan showed no remaining sign of my cancer, I still need to complete the full 12 months of treatment. The side effects of the therapy to date have been manageable. I continue to manage a reasonable workload and value the help and assistance that has so willingly come from all levels. Cheryl and I appreciate everybody’s concern and thank you for your well wishes. We will provide further updates as we learn more but for now we feel very blessed to have had such good care and a positive outcome.

We thank you for your loyalty and continued support of our organisation and look forward to working with you and future generations.



Dale Elphinstone
Executive Chairman
Elphinstone / William Adams Group

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EDDY KONTELJ - SERVING THE CITY OF GREATER GEELONG

Many of our William Adams' family have got to know Eddy Kontelj, our Managing Director over his period of almost twenty years with the business. Some, however, may be unaware of the significant role he plays within his community outside of William Adams.

Eddy's parents fled a war torn country to build a better life for their children in Geelong, and other than postings interstate and overseas as Eddy gained experience in the earthmoving and mining industry, Geelong has been home for Eddy and his family.

Born, raised and educated in Geelong, his passion for Geelong and the region runs deep. Eddy's family has an extremely strong and long standing connection to Geelong. Having previously represented the people of Geelong as a City of Greater Geelong Councillor between 2010 – 2016, and being a husband and father to three daughters, he has a genuine interest in community and the Geelong environment. In addition to his role as Managing Director, and City of Greater Geelong Councillor, Eddy is also the Honorary Consul for the Republic of Slovenia – Victoria.

Affordable and flexible parking options in the Central Business District (CBD), particularly around city hospitals, and hard waste collection solutions are just two of the initiatives he will be advocating to identify and implement whilst in office.



"Delivery of efficient and effective services to minimise community financial burden will also be a priority in order to continue to invest in vital infrastructure and to actively help and support valuable organisations that represent the best interest of our community, youth, families, our precious elderly, sporting clubs and our respected military veterans", said Councillor Kontelj.

Eddy told Plus that being elected a Councillor to the City of Greater Geelong Council and having the ability to give back to his community and region, is the ultimate privilege and honour.

"Our potential and ambitions should only be limited by our imagination" said Eddy Kontelj, who also manages to squeeze in time to train for, and compete in long distance half Ironman distance events, comprising of a 1.9k swim, 90k cycle leg, and half marathon run leg (21k).



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CLEANAWAY

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WINTER 2018 PLUS.

CAT NEXT GEN EXCAVATORS AUSTRALIAN LAUNCH

FEBRUARY 28 2018
RIVA, ST KILDA





THREE NEXT GENERATION CAT® EXCAVATORS DELIVER MORE CHOICES FOR INCREASED EFFICIENCY AND LOWER OPERATING COSTS

THREE NEXT GENERATION 20-TON SIZE CLASS EXCAVATORS FROM CATERPILLAR—THE 320 GC, 320 AND 323— INCREASE OPERATING EFFICIENCY, LOWER FUEL AND MAINTENANCE COSTS, AND IMPROVE OPERATOR COMFORT COMPARED TO PREVIOUS MODELS. THE NEW EXCAVATORS OFFER UNIQUE COMBINATIONS OF PURPOSE-BUILT FEATURES DESIGNED TO MATCH CUSTOMERS' PRODUCTIVITY AND COST TARGETS.

Still the 20-ton class standard, the new Cat® 320 raises the bar for efficiency with integrated Cat Connect Technology that advances productivity gains. Standard technology combined with lower fuel and maintenance costs deliver low-cost production in medium- to heavy-duty applications.

Designed for low- to medium-duty applications, the new Cat 320 GC combines the right balance of productivity features with reduced fuel consumption and maintenance costs. The result is high reliability and low cost-per-hour performance. Delivering high production performance, the new premium Cat 323 boasts standard integrated Cat Connect Technology and the most power and lift capacity in the line. These features combine with lower fuel consumption and reduced maintenance costs to deliver maximum productivity at the lowest cost.

Technology boosts efficiency by up to 45 percent

The new Cat 320 and 323 boast the industry's highest level of standard factory-equipped technology to boost productivity. Both models are equipped with integrated Cat Connect Technology, which increases operating efficiency by up to 45 percent over traditional grading operations.

Offering guidance for depth, slope and horizontal distance to grade, the Cat Grade with 2D system helps operators reach

desired grade quickly and accurately. Using the system's E-fence feature enables the machine to work safely under structures or near traffic by preventing any part of the excavator from moving outside operator-defined set points. The standard 2D system can be upgraded to Cat Grade with Advanced 2D or Cat Grade with 3D.

Standard Grade Assist automates boom, stick and bucket movements, so operators stay on grade simply and effortlessly with single-lever digging. Cat Payload on-board weighing, integrated on the Cat 320 and 323 at the factory, delivers precise load targets and increased loading efficiency with on-the-go weighing and real-time payload estimates without swinging to prevent truck over/under-loading. Cat LINK™ hardware and software connect jobsites to the office and provide customers with machine-critical operating information.

Fuel savings reaching 25 percent

Durable Cat engines provide duty-matched power ratings from 108 to 122 kW for the three new excavators. The efficient Next Generation machines consume 20 to 25 percent less fuel than the previous, corresponding models. New Smart mode operation automatically matches engine and hydraulic power to digging conditions, optimising both fuel consumption and performance. Engine speed is automatically lowered when there is no hydraulic demand to further reduce fuel usage.

With a new hydraulic system built for responsiveness and efficiency, the Cat 320 GC, 320 and 323 feature a new main control valve that eliminates the need for pilot lines, reduces pressure losses and lowers fuel consumption. Fewer hydraulic lines on the excavators result in 20 percent less oil required, lowering long-term operating costs.

Maintenance costs reduced as much as 15 percent

Offering extended and more synchronized maintenance intervals, the new Cat excavators do more work at a lower cost and reduce maintenance costs by up to 15 percent over the previous series. The new Cat hydraulic return filter boasts a 3,000-hour service life, a 50 percent increase over previous filters. A new Cat air filter with integrated pre-cleaner and primary and secondary filters extends service life to 1,000 hours, a 100 percent increase over previous designs, while a new fuel tank cap filter extends service life to 2,000 hours. The three fuel system filters each offer a 500-hour service interval.

All daily maintenance checks for engine oil, fuel water separator, fuel tank water and sediment, and cooling system level are performed from ground level, making the routine faster, easier and safer. Consolidated filter locations reduce service time.

New cab designed to enhance operator performance

Next Generation Cat Excavator cabs come equipped with standard features like keyless push-button start, large 10" touchscreen (8" on 320GC) monitors with jog dial keys for control and sound-suppressed rollover protective structures (ROPS) to offer the next level of operator comfort, safety and quiet operation.

The new spacious cab features a low-profile design and large front, rear and side windows to enhance visibility to the front and side of the excavator. 360-degree visibility combines images from multiple machine-mounted cameras to enhance the operator's sight-lines in all directions. Automatic climate control maintains internal cab temperature settings, regardless of external ambient temperatures. A Bluetooth® integrated radio with USB ports for connecting and charging phones bring creature comforts from the home to the operator's office.

"We have equipped our Next Generation of excavators with revolutionary technology to optimise our customers' jobsites and maximize the value we provide them," says Ranil Tennakoon, Caterpillar's Regional Sales Manager for Australia and New Zealand.

"Through our consistent investment in product development, we have managed to improve operator efficiency, and reduce fuel consumption and maintenance costs significantly."

THE NEXT GENERATION OF EARTHMOVERS CHOOSE THE NEXT GENERATION OF EXCAVATORS

For Shane Lindsay and Jimmy Starbuck the journey to purchasing the first Next Gen Excavators in Victoria began back in November last year. William Adams sales representatives were away in Japan to get their first taste of the Cat Next Gen excavators, and with their excitement levels so high with the new offering, a call had to be made back home to update Shane and Jimmy on the amazing new technology. The cost of that international call was well worth it as both travelled to Clayton soon after and placed the first orders even prior to the official launch at Riva in St Kilda in late February. Not only were they the first to place orders for Next Gen excavators but they both opted for the first ever Caterpillar fully integrated factory fitted 3D systems on the 323's.

Both Jimmy and Shane are young and exciting prospects for the earthmoving industry in Victoria, and with their rapidly expanding civil contracting businesses really are part of the "Next Generation". Shane is the director of SLE Excavations and Jimmy the director of Starbuck Excavations, both operating out of Melbourne's northern suburbs. So why did they choose this product? The answer is quite simple according to Jimmy, "because 3D is the future".

The new Next Gen excavators boast many features as standard factory options that would generally require local outsourcing from multiple suppliers to install prior to taking delivery - features like the new E-Fence technology, integrated payload systems, and grade control and assist for added accuracy and speed in job completion. "With the escalating cost of labor, tighter time frames and tolerances to complete work, along with safety being such a high priority, the Next Gen excavators have everything you need" says Shane.

Delivering high production performance, the new premium Cat 323 boasts standard integrated Cat Connect Technology and the most power and lift capacity in the line. These



features combine with up to 25% lower fuel consumption and reduced maintenance costs to deliver maximum productivity at the lowest cost. The new Cat 323 boasts the industry's highest level of standard factory-equipped technology to boost productivity, increasing operating efficiency by up to 45 percent over traditional grading operations.

Jimmy is no stranger to the Plus magazine, featuring in the Summer 2016 edition with his first Caterpillar, a 320EL fitted with Cat Grade Control. This was Jimmy's first taste of technology and the advantages it provided and he was quoted as saying how invaluable this has been in terms of accuracy and cost savings. Along with Shane he continues to be an early adopter of technology with 3D machine control systems fitted to several of their current machines.

Shane is able to make direct comparisons with the level of service and support he receives from William Adams, given his mixed fleet, and this is a significant influence in his recent decisions to choose Cat. Another is his view that Caterpillar is leading the way with technology that makes a real difference, not only to his business, but for his customers too.

With rapidly expanding businesses, and work volumes increasing, both of the boys can't wait to get their hands on their new full 3D Cat 323's. And as Jimmy states "the next generation of machines, with the next generation of hardware is what it's all about"

SECOND CAT 730 FOR TRELOAR GROUP

Treloar Transport, based in Sheffield in Tasmania's north west specialise in surveying, excavation, drainage, storm water and sewerage installation, trenching for power telecommunication services, and pavement construction with materials supplied by the company's own quarries. The company's quarries provide a range of road base materials. Products include sub-base, base course, shoulder materials, drain rock and pipe bedding.

The Group's contracting arm has experience in project completion including earthmoving and earthworks, quarry rehabilitation, effluent ponds, siltation and landslip control, bridge construction, storm water control, silviculture and forestry road construction.

Treloar Transport has a large range of plant and equipment for hire including excavators, wheel loaders, graders, dozers, rollers, as well as a large truck and trailer fleet. Caterpillar products are well represented in the fleet, the Treloar family having been long and loyal supporters of William Adams over two generations and spanning over thirty years.

Pictured is Treloar Transport's new Cat 730C2 working at the Blackwater quarry south of Smithton for Tasmanian Advanced Minerals (TAM) in the extraction of various grades of high purity silica flour for the production of specialised glass.

The new 730C2 follows an earlier Cat 730, purchased in 2008, which has now accumulated over 14,000 service hours.



VEC CIVIL RMT15F

VEC Civil Engineering Pty Ltd have taken delivery of a new Elphinstone RMT15F rail machine. The machine is now involved in replacing track sleepers for Tasmanian Railway Pty Ltd in central Tasmania, although is pictured at initial delivery at the Don River Railway. The Don River Railway is the North West Coast's Premier Tourist Attraction and one of Australia's finest heritage passenger carrying railways, located just 5 minutes from Devonport, Tasmania.

The RMT15F is a very versatile machine for rail operations, carrying out several tasks, from replacing rail sleepers, ballast and site preparation work.

The RMT15F is manufactured by Railmax which is part of the Elphinstone Group of companies.



MAX BRIGHT AND SONS TAKE DELIVERY OF THEIR SECOND 730C SERIES 2 EJECTOR TRUCK.

Max Bright and Sons is an established earthmoving company specialising in bulk earthworks.

An increasing work demand has resulted in the company purchasing a Caterpillar 349FL Excavator along with their second Caterpillar 730C series 2 ejector truck.

Max Bright and Sons are familiar with ejector trucks, owning a fleet of earlier Caterpillar 730 trucks, and they are aware of the significant benefits in safety and productivity.

Max Bright and Sons are very conscious of safety in the work place and see value in the safety features built into the ejector trucks including their ability to unload in soft underfoot and uneven ground conditions without the risk of rollover.

The trucks are very productive and in some applications, do not need a support machine as the ejector trucks are capable of spreading the material on their own unlike rear dumpers and as they are ejectors they have no carry back in the bodies.

Guy Rigoni who is the William Adams account manager for Max Bright and Sons also recently supplied a new Caterpillar 336FL Excavator and 950M Wheel Loader. William Adams would like to thank Max Bright and Sons for their continued support of William Adams and the Caterpillar product.



MAJOR MELBOURNE CONTRACTOR CONTINUES TO INVEST

Gary and Karen Gardiner founded Civilworx, based in Thomastown in Melbourne's northern suburbs, in 2004. Prior to forming Civilworx, Gary held senior positions in other highly regarded Civil Construction companies in Melbourne. He has over 30 years' experience in the civil construction industry and has alongside Karen, overseen the company's growth to see it now as a well-respected, highly credentialed contractor in Victoria.

Gary's wife Karen is Group Financial Controller, and has had responsibility for the company's overall financial position and administration since 2004.

Son Aaron now has some eleven years' experience in the Civilworx team and is currently acting as a Leading Hand, while daughter Brittany acts as a Project Manager and has been with the company for three years.

Civilworx are at the forefront of civil construction in and around Melbourne, specialising in the construction of new residential subdivisions, industrial subdivisions, road construction, car parks, earthworks, drainage, sewer, water and wetland construction.

Gary and his team have a high degree of expertise in the Civil Construction field, and pride themselves on having a strong list of resources and equipment that guarantees optimal client satisfaction. Civilworx have continued to invest in a modern fleet, much of it Caterpillar. The company operate almost a dozen hydraulic excavators from 8 to 35 tonne operating weight, smooth drum and padfoot vibratory rollers, motor graders, articulated trucks, backhoe loaders, wheel loaders, water carts and compactors. The most recent additions to the fleet have been a pair of Cat F series excavators, a new 323FL and a new Cat 330FL, both delivered late in 2017.

"We were looking to update our Excavator Fleet and in early 2017 I was fortunate to be able to attend Conexpo in Las Vegas where the F Series were on display with Grade Control. We were shown the merits of many aspects of the machines by the Caterpillar people on site. As a result of this and then considering our other options we settled on the purchase of a 323F and 330F with Grade Control. We have been extremely happy with the performance and added productivity of both machines since their introduction into our fleet", Gary told Plus.

Gary's passion for the industry has seen him have a strong involvement in the Civil Contractors Federation both at a State and National level over many years and is a past Branch President. Gary was also recently inducted as a CCF Life Member.

William Adams enjoy an excellent relationship with the team at Civilworx, and have taken much pleasure in sharing in the company's solid growth over the past fourteen years.



NEW CAT 323FL TO HAWKS

Hawks Excavation are a growing earthmoving company based in Doncaster, in Melbourne's eastern suburbs, and who have just proudly taken delivery of a new Cat 323FL Hydraulic Excavator.

Hawks have been a very loyal customer of William Adams now for the last 7 years and in this time have purchased 2 x 5 tonne excavators from our Used Equipment department, and in more recent times have taken delivery of a new 311FLRR and a new 305.5E2CR. Plus would like to thank Hawks Excavation for their ongoing support and loyalty to the Caterpillar brand.



SBI QUARRIES

SBI Quarries added a new Cat 336FL Hydraulic Excavator to their fleet early January 2018.

The new 336FL was delivered to SBI Groups' Cranbourne South quarry alongside an existing Cat 336DL, and will be employed feeding the crushing plant.

William Adams' John Merlo and Nick O'Doherty completed the handover to SBI's Paul Williamson and his team.



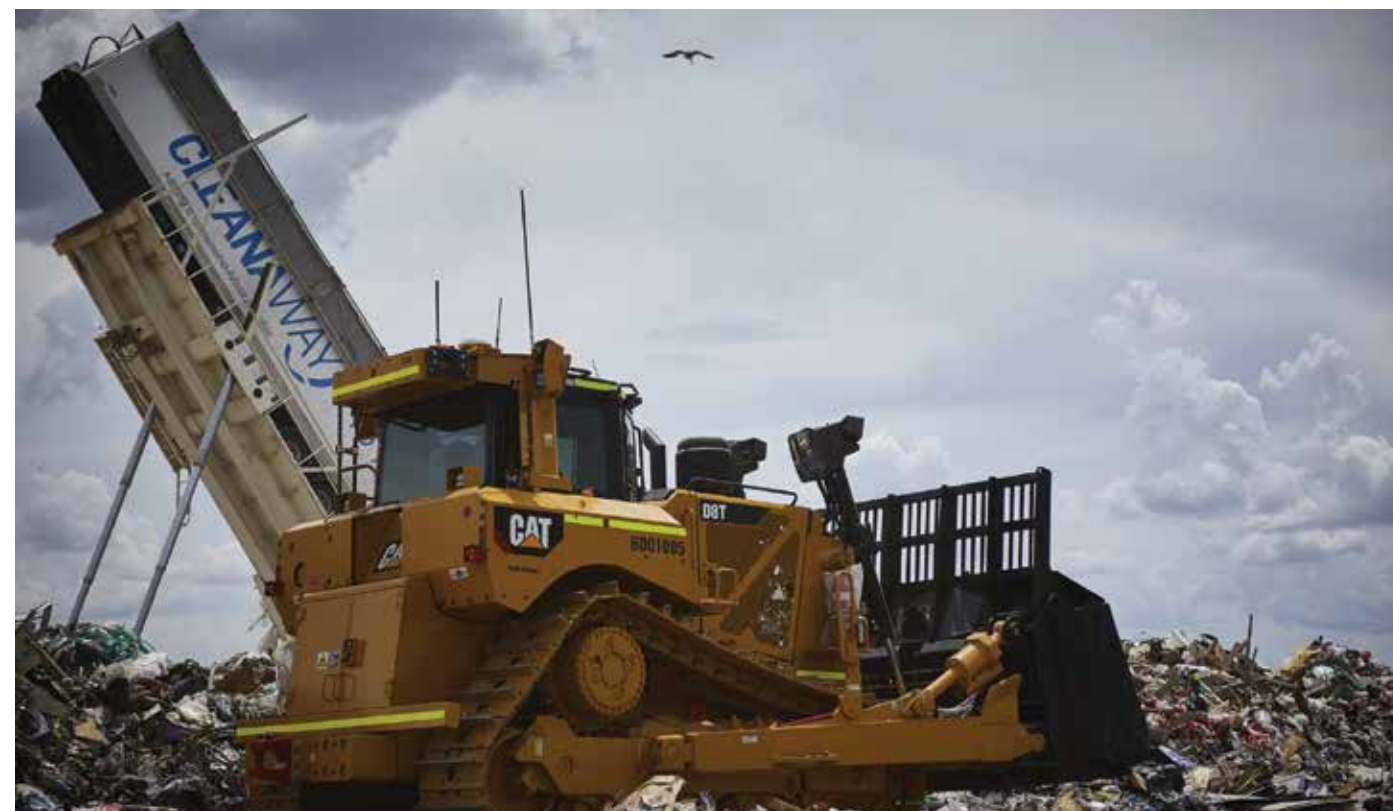
CLEANAWAY – MELBOURNE REGIONAL LANDFILL

CLEANAWAY IS AUSTRALIA'S LEADING WASTE MANAGEMENT COMPANY, IS AN ASX TOP 200 LISTED COMPANY AND EMPLOYS OVER 4,000 PEOPLE ACROSS AUSTRALIA. ON 1 MARCH 2015, CLEANAWAY TOOK OWNERSHIP AND OPERATIONAL RESPONSIBILITY FOR THE MELBOURNE REGIONAL LANDFILL (MRL), ADJACENT TO THE BORAL QUARRY ON CHRISTIES ROAD, RAVENHALL, IN MELBOURNE'S WEST.



EQUIPMENT FLEET DELIVERED TO CLEANAWAY MRL SITE IN DECEMBER 2017

- 2 x New Cat 838K Landfill Compactors
- 2 x New Cat D8T Track Type Tractors
- 2 x Used Cat 740 Articulated Trucks
- 1 x Used Cat Water Cart
- 1 x Used Cat D6T Track Type Tractor
- 1 x Used Cat 336D Hydraulic Excavator
- 1 x Used Cat 140H Motor Grader
- 1 x Rebuilt Cat 836H Landfill Compactor
- 1 x Rebuilt Cat D9R Track Type Tractor





Steve Arnold

The Melbourne Regional Landfill accepts domestic or household waste from kerbside collection, putrescible waste, commercial and industrial waste, construction and demolition waste, low level contaminated soils, green garden waste and clean fill.

The Melbourne Regional Landfill operates 24 hours a day, 7 days a week, receiving over 400 trucks per day, and processes over 1.2 million tonnes of waste per annum.

William Adams were chosen by Cleanaway as the primary supplier of equipment to the MRL, delivering a dozen new and used Cat machines to site ready to go to work December 1, 2017.

Plus caught up with Mark Globan, Cleanaway Regional Manager (Vic/Tas), Nicholas Duffy, Landfill Operations Supervisor, Steve Arnold, Fleet Manager and Aiden Robertson, MRL Foreman and plant operator to get their perspective on the first several months of operation, and in particular, the two new 836K Landfill Compactors and two new D8T Track Type Tractors employed on site.

“One of the key components of land filling is maximising our airspace. So we need to know that we’re compacting the waste to the required heights, operating efficiently and being at the top of our game is extremely important, and one reason why we chose Caterpillar”, Mark told Plus. “Our front line equipment, namely the D8T’s and the 836K’s, feedback from our operators has been fantastic”.

Landfill Operations Supervisor, Nicholas Duffy said, “We have about 17 machines on site and we just try to keep the flow going all day - it’s about having all those machines working in sync with each other, the dozers and the compactors. The D8T is a beautiful machine to use, very nimble, really responsive controls, quiet and comfortable. They are really nice to be inside which is important for us as it ensures that we keep our operators happy”.

Aiden Robertson, MRL Foreman added that “the semi U-shape blade really pushes harder than D8R’s and other tractors we have used. With the high-track design, we can climb batters, and we can use them in the waste without clogging undercarriage components and really dragging. These things will push through anything”.

Aiden continued on the 836K Series Compactors, “Comparing the K’s to the previous H model, they seem to compact a lot harder. It cuts our time down, by at least 25%. If we’re not having to go over the fill as many times, it means we can get a lot more tonnage through the door, and get it compacted a lot quicker.

Sitting in them, it’s like being in your lounge at home. Everything’s at the touch of a button”.

Nicholas agrees. “My belief is that you get better compaction. I’ve operated every type of compactor under the sun, and nothing’s ever come close to the 836s”.

Cleanaway Fleet Manager, Steve Arnold told Plus that technology like Vision Link and Cat Compact have made a real difference to the efficiency of the site. “The Caterpillar Visionlink is a tool that I use daily, keeping our eye on machines and looking for critical events that may well have happened. Also, it shows up idle time, allowing me to see if the machines have been sitting around - from my desk, in my office, which is a great asset.

We also use the Cat compaction system to assist our operators so they have real-time information at their fingertips, to make sure we’re hitting compaction targets”.

Nicholas Duffy explained, “For the operators in the cab it gives them a really nice visual heads up display. You know you’re working off 4 passes, but if you get there in 3, great, we can move on. And we can track all that, so it stores all that data, it feeds it back to us and we can pull whatever reports we need to out of that. For our planning and operational side, that’s really handy”.



“ONE OF THE KEY COMPONENTS OF LANDFILLING IS MAXIMISING OUR AIRSPACE. SO WE NEED TO KNOW THAT WE’RE COMPACTING THE WASTE TO THE REQUIRED HEIGHTS, OPERATING EFFICIENTLY AND BEING AT THE TOP OF OUR GAME IS EXTREMELY IMPORTANT, AND ONE REASON WHY WE CHOSE CATERPILLAR”, MARK TOLD PLUS.

With a large fleet of equipment on site, both productivity and availability are critical.

Mark told us that “Minimising downtime on our equipment is key, so we can continue to service our customers twenty four hours a day, seven days a week. Our relationship with William Adams is extremely important. So for the next 12 to 18 months, we’ll be looking to fine-tune our processes, improve the operating culture on site, and work with William Adams and Caterpillar to see how we can make those improvements”.

Steve added that “The back-up and support from William Adams is always second to none. So to make one phone call for one supplier to come out and look at a machine builds a lot of confidence for me”.

When asked about future plans for the MRL site, Nicholas was quoted as saying “Plans for the future? More of these. More D8T’s and more 836K’s, if I can wrangle it!”



A NEW ERA IN MELBOURNE'S SOUTH EAST AS CLEANAWAY OPENS SEMTS.

Cleanaway's new, state of the art South East Melbourne Transfer Station in Dandenong South has recently taken delivery of two new Caterpillar 962M Series Wheel Loaders to handle the incoming waste.

Marking a significant milestone for the company, and designed with the capacity for growth, the transfer station will serve Melbourne's growing south east corridor.

"As our population grows, so does the waste we generate. This means we need to plan carefully. Facilities like these are an important part of our long term strategies for waste management" said Cleanaway management at the facility's opening.

Vik Bansal, CEO and Managing Director of Cleanaway said "the investment in this facility strengthens our long-standing commitment to Victoria's economic and environmental wellbeing."

"At Cleanaway, we're working to ensure that our national network of facilities and supporting infrastructure will meet Australia's waste management needs well into the future."

Cleanaway's strategy supports Sustainability Victoria's Statewide Waste and Resource Recovery Infrastructure Plan which favours greater resource recovery, with fewer, larger landfills to manage Victoria's residual waste, supported by a growing network of transfer stations like this.



NORWAY PLANS TO BUILD THE WORLD'S FIRST TUNNEL FOR SHIPS



NORWAY PLANS TO BUILD THE WORLD'S FIRST TUNNEL FOR SHIPS, A 1,700-METRE PASSAGEWAY BURROWED THROUGH A PIECE OF ROCKY PENINSULA THAT WILL ALLOW VESSELS TO AVOID A TREACHEROUS PART OF SEA.

Construction of the Stad Ship Tunnel, which would be able to accommodate cruise and freight ships weighing up to 16,000 tons, is expected to open in 2023.

It will be 36 metres wide and 49 metres tall and is estimated to cost at least 2.7 billion kroner (\$314 million).

Norwegian Transportation Minister Ketil Solvik-Olsen said that sea currents and underwater topography in this part of the country's southwestern coast "result in particularly complex wave conditions."

"We are pleased that the ship tunnel now becomes reality," Solvik-Olsen said, adding that travel time between Norwegian cities and towns in the area would be reduced. Over the years, plans for a ship tunnel in Stad had been floated but now a project with financing is ready, he said.

The tunnel is expected to be located at the narrowest point of the Stadlandet peninsula and the weather has for decades been considered an obstacle for shipping.

Project manager Terje Andreassen said engineers will have to blast out an estimated eight million tons of rock to build the tunnel. Construction is expected to start at the earliest in 2019.

Under the plan, passenger traffic will be given priority but leisure boats and other vessels can also use the tunnel. It will be free of charge for vessels measuring less than 70 metres, and vessels longer than that would have to be led. Vessels sailing through the tunnel likely will get slot times from a traffic centre — like planes at an airport — to avoid congestion

EPSA CELEBRATES TWENTY FIVE YEARS



In 1992 Caterpillar and Australian Cat® dealers decided that the Cat® engines business needed a co-ordinated national presence, so they created a company to operate on an Australia-wide basis, and Energy Power Systems Australia (EPSA) was formed.

EPSA celebrated 25 Years of operation throughout 2017. Mulgrave Head Office had a celebration for present and past employees, along with guests from Caterpillar and Dealer Partners. Long-term staff members shared some of their memories and it was a timely reminder of how EPSA has evolved as an organisation over its first quarter century. EPSA branches across Australia celebrated in their own unique ways and reflected on the past 25 years.

A Cat® timeline was developed for the Reception area in Head Office including some interesting milestones for EPSA, Caterpillar, and Australian and international Dealer Partners since the 1880's.

A national Cat® Trivia quiz was conducted across Australia on social media and within EPSA; interesting facts from Caterpillar and Dealer Partners were profiled and evoked much discussion.

Memorabilia for EPSA and Caterpillar in Australia over the last 25 years was also gathered.

AUSTRALIAN PROJECT SOLUTIONS

Australian Project Solutions was established in 1997 and are specialists in engineering marine, coastal and environmental construction.

They cater to a diverse client base including federal, state and local government authorities and civil engineering consultants. Along with Cat Rental, both Mark & Shane at APS are committed to providing their clients' with the highest level of service and accountability, that's why Australian Project Solutions turn to Cat Rental as their provider of civil equipment for all their projects, and have done so since 2001.

This makes APS one of Cat Rentals' longest established customers.

Cat Rental would like to thank both Mark and Shane for their valued business and look forward to working with them on their future projects.

The images show one of APS's current jobs, the Sandringham Beach, Ramp and Sand Rejuvenation Project.

Cat Rental is supplying Cat 730 Articulated Dump Trucks to this important project.

RENTAL



CAT RENTAL APPOINTMENT

I'm Mark Rochford and it's a fantastic feeling to have joined the Cat Rental team early this year in the position of Rental Manager.

I have been fortunate throughout my career to have gained experience in various roles be it on the tools or Sales and Operational roles serving the Civil, Construction and Mining industry for over 30 years in various States and Territories across Australia. I have now been living in Melbourne for the past 15 years & working in the Rental Industry.

Great "Customer Experience" is a passion for our team at Cat Rental, and I particularly look forward to continuing to provide this whilst being and meeting the customer needs.

I am delighted that we continue to invest in our people and equipment to provide the right solutions for our customers. I feel it is a privilege to be part of such a committed, customer focussed team who have a great safety culture.

I look forward to meeting and working with more of our customers in the near future.

Mark Rochford
Manager, Cat Rental



CAT RENTAL FLEET UPGRADE

More new Cat equipment has been rolling in month on month as the CAT Rental Store updates their fleet with the view of supplying our customers the most up to date, technologically advanced equipment available.

This significant re-investment has been focussed around replacing existing rental fleet units with the most current units available, helping to modernise what is already one of the newest rental fleets in the industry. This should correlate to savings for our customers due to now having the ability to utilise equipment on their projects that is more efficient, more productive and with increased reliability.

Our goal is to provide our customers with the best quality equipment, service and support that we can and this re-investment will certainly improve the CAT Rental Store experience for all our valued customers as we head into another financial year of buoyant market conditions.



CAT RENTAL STORE APPOINTS MAJOR PROJECTS RESOURCE

Hi, I'm Kurt Lewis and I am the newly appointed Sales Representative for Major Projects at the CAT Rental Store.

I have been in the rental industry for the last 12 years and still enjoy it today just as much as I did when I started on the workshop floor as a small engines trainee. For the majority of my career I have been based in far north Queensland. My family and I moved to Melbourne at the start of 2017 with the goal to further our careers, and needless to say, we've officially been won over by the cooler climate, personal opportunities and the amazing food!

I've had the privilege to work for some great businesses during my journey to date. Whilst I acknowledge that it's only early days, the culture within the William Adams business has been a stand out for me from the start - the customer focus that I have experienced to date is second to none. There is also a large re-investment into the rental fleet with many of our current machines being replaced with new and more technologically advanced equipment to further cement us as a leader in the heavy rental space in Victoria and Tasmania.

I'm ecstatic to be working with the market leader during these exciting times ahead and look forward to working with our major project customers in the future.

CAT® AUTONOMOUS HAULAGE SYSTEM USERS REPORT PRODUCTIVITY & SAFETY GAINS

THE AUTONOMOUS HAULAGE SYSTEM THAT CATERPILLAR DEVELOPED IN PARTNERSHIP WITH SEVERAL OF ITS LARGEST MINING CUSTOMERS IN THE LAST DECADE HAS BEEN SUCCESSFULLY DEPLOYED FOR OVER FIVE YEARS, AND IN THAT TIME HAS SAFELY MOVED MORE THAN 600 MILLION TONNES OF ORE.

While the team at Caterpillar has been quick to point out the benefits of the system, its customers are now beginning to publicly share the scale of what autonomy is making possible in their operations.

“They’re sharing it by reporting actual results — like a 20 percent increase in overall productivity,” says John Deselem, Caterpillar technology manager responsible for the company’s autonomous haulage product. “They’re also sharing it through expansions — adding more autonomous trucks to current operations and introducing autonomy on additional mine sites. This system is having a significant impact on these mining operations — so much so that they want to replicate it elsewhere.”

Caterpillar’s flagship autonomous operation, the Fortescue Metals Group (FMG) Solomon iron ore mine in the Pilbara region of Western Australia, recently announced that it will expand on the nearly 60 autonomous trucks operating at Solomon. At its Chichester Hub, FMG will retrofit the system on approximately 100 Cat trucks and — in order to meet the company’s business needs — Komatsu truck models, as well.

Elsewhere in the Pilbara, BHP Billiton recently announced that its Jumblebar operations will become its first operation to move completely to driverless trucks, expanding its current

fleet of 25 Cat 793F autonomous trucks to 50 by the end of 2017. The company has reported that the move to automation is part of its strategy to improve safety, build capacity and remain globally competitive.

CHANGING HOW MATERIAL IS MOVED

The Cat autonomous haulage system, Command for hauling, is part of the company’s Cat MineStar™ suite of technology products for the mining industry. Caterpillar has Command offerings for drilling, dozing and underground mining, as well. Trucks equipped with Command respond to calls to the shovel, move into position, haul to dump points and even report for maintenance — all without an operator on board.

“Just a few short years ago, we had a handful of trucks at a customer site, and today we have the single largest autonomous truck fleet in the world,” says Deselem. “We’re changing how mining companies move material. They’re experiencing the consistency that comes from near-continuous operation and the elimination of human error. They’re able to operate with fewer people in potentially hazardous areas. And they’re experiencing unheard-of productivity gains.”

BOOSTING SAFETY

Autonomous trucks are able to interact safely with other manned and light vehicles thanks to Command’s multiple, redundant sensing systems. They also maintain optimal operating speeds and safe following distances at all times. “Of course, the biggest safety benefit is the fact that there are fewer people being exposed to on-site hazards,” says Deselem. “But autonomous trucks are also safer in how they operate. Cat autonomous trucks have moved millions of tons of ore to-date, and that’s all without a single lost-time injury.”

INCREASING PRODUCTIVITY AND LOWERING COSTS

Deselem says there are many contributors to the efficiency and productivity gains realized through autonomous haulage. Mines are able to optimise production, with tight truck exchanges and no need for shift changes. There’s also less damage to machines and downtime due to misuse and overloading.

The benefits at Solomon are proven and growing, he says, with FMG reporting a 20 percent productivity boost since the implementation of autonomous haulage just a few short years ago.

WORKING HAND IN HAND

Deselem says Caterpillar has developed a top-notch team to go along with the Intellectual Property it provides. “We’re on site to implement the system, along with the Cat dealer, and we work hand in hand to fill whatever role they need us to.” Caterpillar currently has more than 25 personnel at customer sites, fulfilling roles such as site manager, application specialist, builder, controller and site engineer. “Today’s Run Teams have 150 years of combined experience running the autonomous haulage system on mine sites,” says Deselem.

“In addition, we have a strong pipeline for these key job roles with 30 people being actively mentored and prepared to take on future site-based roles for our customers.”

Beyond the implementation and support teams, the company also has more than 60 engineers fully dedicated to research, development and validation of the system. In addition, hundreds of engineers support the program ad hoc as needed from their areas of speciality.

Technology solutions like Command for hauling are growing at an exponential rate, says Deselem, and the speed at which they are being implemented is growing, as well. “Our first implementation of autonomous haulage took years — developing the technology in collaboration with our customers, and also working alongside them as we discovered together how best to implement it and manage the on-site changes required to adjust to the new processes,” Deselem recalls. “Our most recent implementation took 10 months.”

Mining companies like Fortescue are prepared to use every technology tool to their advantage. “By harnessing leading-edge technology, supporting the skills development of our workforce and collaborating with our suppliers, we will continue to deliver ongoing cost reductions, ensuring we remain at the lowest end of the global cost curve,” Nev Power, chief executive officer of Fortescue, said.



CATERPILLAR AND FORTESCUE MOVING FORWARD WITH EXPANSION OF AUTONOMOUS TRUCK FLEET IN AUSTRALIA

Caterpillar and Fortescue Metals Group have reached agreement for the expansion of Cat® Command for hauling at Fortescue’s iron ore mines in the Pilbara region of Western Australia. This will include retrofitting approximately 100 Cat 793F and 789D and Komatsu 930E truck models at the Chichester Hub, as well as an expansion of the Cat 793F autonomous truck fleet at the Solomon Hub operations.

The Command for hauling system is built on a foundation of the other Cat MineStar™ capability sets — Fleet, Terrain, Detect and Health — which will be utilized across the mobile equipment fleet, including support equipment and light vehicles. Caterpillar is working closely with Fortescue, Thiess Contractors, and the Cat dealer in Western Australia, WesTrac, to provide a solution for managing, operating and supporting Cat MineStar and Command for hauling.

Nev Power, chief executive officer of Fortescue, said, “Fortescue values the strategic relationship developed with Cat since 2012, as autonomous haulage technology has been implemented at our Solomon Hub, achieving a 20 percent improvement in productivity. We will continue to work together to ensure the next stage successfully builds on the safety, productivity and efficiency gains we have achieved so far.”

Fortescue and Caterpillar have collaborated to integrate autonomous haulage at the Solomon Hub operations since the first half of 2013. During this time, Fortescue’s autonomous haulage fleet has expanded to 56 Cat 793F CMD trucks. In August, the Fortescue autonomous fleet surpassed the milestone of 400 million tonnes safely hauled since the launch of the system.

CAT® 794 AC OFFERS PROVEN ADVANTAGES OVER THE COMPETITION

Caterpillar introduced its newest large mining truck, the 291-tonne (320-ton) 794 AC, at MINExpo International in September 2016. The truck uses a combination of proven designs, such as a chassis that has accumulated about 18 million operating hours and an AC powertrain that has racked up 4 million hours.

“The 794 has a fully integrated Caterpillar electric drive system — engine, drive train, software controls, everything,” says Performance Manager John Ingle. “That means we can have better efficiency, and utilize features like Cat® oil-cooled disc brakes on all four corners. All these features come together in one truck that is entirely supported by Cat and Cat dealers.”

Today, after five years of extensive field testing at key mines, 794s are operating in four countries —working in applications ranging from deep pit copper in the western United States to coal and copper in South America. “Field testing also included comparisons against trucks in this size class that were built by other manufacturers, says Ingle. “These comparisons have helped miners recognize the 794 AC’s advantages over existing trucks in its class — like substantial improvements in their performance and cost per ton.”

Miners who evaluate the trucks are discovering a number of ways the Cat 794 AC outperforms the most popular competitor in the 291-tonne (320-ton) electric drive truck class:

- **True 290 tonnes (320 tons).** The weight-efficient 794 delivers more payload for a given rated Gross Machine Weight (GMW).
- **Nearly 1 kph faster speed on grade.** During trials in the field, the properly-loaded 794 AC operating on a grade consistently demonstrated a speed advantage over the competition.
- **Robust service and park brakes.** As Ingle points out, oil-cooled wet disc brakes with integrated park brakes are a hallmark of Cat design. This means that beyond the superior continuous retarding dynamics of the 794, operators are also comfortable with capabilities of the truck’s wet disc brakes to provide added control.
- **19% higher stall torque.** With about 22 000 kg more stall torque than competitive trucks, the 794 AC delivers higher performance in soft underfoot conditions.
- **40% more retarding power.** With 4086 kW of retarding power — about 1200 kW more than the competition — the 794 can deliver faster cycle times, plus operators can work more confidently on steep downhill hauls.
- **1,275 CFM more cooling capacity.** The 794 AC features an efficient hydraulic variable-speed motor, while the top competitive truck uses a mechanical alternator-driven blower. The additional cooling capacity offered by the 794 AC allows optimum cooling even at idle, which helps extend the life of key components and reduces total owning and operating costs of the truck.

These and other advantages add up to a solid truck that miners can depend on, says Ingle. “Mines running the 794 are confirming the truck is built with proven iron and able to go toe-to-toe with the competition — and win,” he says.

CATERPILLAR TESTING NEW BATTERY ELECTRIC LHD

A proof-of-concept battery electric LHD (load-haul-dump) machine developed by Caterpillar will soon be moving muck in a Canadian underground mine, continuing the validation of a Cat R1300G test unit that began in early 2017 at the Caterpillar Peoria Proving Ground.

While the test unit itself does not represent the final design, the prototype machine is a proof of concept for packaging and performance of a lithium-based energy storage solution Caterpillar plans to bring to the LHD market.

“Our customers are planning for deeper mines with very high ambient rock temperatures where ventilation costs are pivotal to making the mine viable,” said Jay Armburger, a Caterpillar product manager with responsibility for underground technology.

“One means of reducing ventilation demand is through electrification of the mining equipment.”

Caterpillar has successfully integrated electric drive train technology and components in a number of surface machines and will bring this knowledge to the underground market.

The company has over 250 patents in the electric drive and energy storage fields, and has developed products like the D7E dozer, F-Series Asphalt Pavers, 794 AC and 795F AC large mining trucks, the recently introduced 988K XE wheel loader, and even micro grid technology.

SETTING HIGH PERFORMANCE STANDARDS

The program started with a full production study and data analysis of the diesel machine in order to set a baseline. Once this was accomplished, the transformation of the R1300G to a battery electric proof of concept began. Modifications included removing the engine, transmission and torque converter, and then reconfiguring the engine end frame to accommodate the battery boxes and electric motors. The result is a battery electric powertrain driving a conventional and mechanical drivetrain (drive shafts and axles).

With the help of several customers who have visited the proof of concept and operated it at the proving ground, Caterpillar is getting feedback to help drive the program forward. All of the customers who have visited the machine have indicated to Caterpillar that pursuing a system that is rechargeable on the machine is the right path forward. Recharging prevents the mine from incurring additional infrastructure costs or from having

to manage or store replaceable battery packs. Instead, Caterpillar is focusing on fast charging of the batteries on the machine such that an operator can take a quick break and come back to a charged machine. In addition to developing the LHD itself, the program has been prototyping a robust charging station.

The technology behind the charging station is unique to Caterpillar and uses Cat components and technology. Caterpillar recognizes that the chemistries and technologies behind battery development are evolving rapidly, and the development team will continue to evaluate these changing technologies to better serve underground mining customers.

“We tried hard to break this machine and technology before sending it to Canada in September,” Armburger said. “With the results we’ve seen so far, we’re confident this R1300G proof of concept is giving us the answers we need to develop a machine that is safe and lives up to the Cat brand promise of durability and reliability.”



FIRST ELECTRIC DRIVE WHEEL LOADER JOINS CAT LINEUP



Caterpillar recently expanded its large wheel loader lineup with the new Cat® 988K XE, the company’s first wheel loader with a high-efficiency drive system. The new loader is more than 90% identical to the 988K, with an electric-drive system designed to make it the ideal choice for high-capacity applications.

Caterpillar used the 988K’s proven and tested Cat 18 ACERT™ engine, mechanical dropbox, driveline and axles — along with the manufacturer’s more than 15 years of electric drive experience — to build the 988K XE. Prior to launch, the wheel loader went through more than 4 years of stringent testing in a range of applications to prove its reliability. Increased efficiency is the key benefit of the electric-drive system, with the 988K XE boosting efficiency by 25% overall — and up to 49% in face-loading applications — when compared to the 988K. These efficiency gains reduce overall costs, fuel usage, greenhouse gas emissions and carbon footprint. Meanwhile, Caterpillar production studies report the new loader delivers up to 10% higher productivity in load-and-carry applications.

The new loader features switched reluctance (SR) technology. The durable SR drive motor, generator and inverter are built to last through the second engine life with minimum maintenance. Additionally, the electric drive design increases engine life by up to 3,500 hours, extending time between powertrain rebuilds.

CATERPILLAR MARKS 40 YEARS OF D10, AND THE TRACTOR FAMILY IT SPAWNED.

Forty years ago, the doors of a new factory just across the Illinois River from Caterpillar Inc. headquarters opened for the first time to reveal a radically updated and enlarged tractor that the plant had been built to produce.

Those first D10 dozers to emerge from Building SS in East Peoria were significant not just for their size — at the time, the model represented the largest and most powerful of Cat’s most iconic product.

One design element in particular made the D10 noticeably different than its smaller siblings: the elevated sprocket and final drive. The circular component that lifted the track and changed its overall outline to a more triangular shape made its debut with the D10 and proved to be such a marvel of engineering that it came to be incorporated throughout the tractor line-up.

“It was absolutely revolutionary when we introduced it 40 years ago,” said Al Kenworthy, a large tractor engineering technical steward at Caterpillar. “It was a stem to stern, top to bottom redesign.”

That elevated sprocket lifted the final drive higher off the ground, away from the rocks and dirt where tractors work, extending drive life and machine uptime.

Previous

The elevation of that component also isolated the drive from shocks and impacts, and allowed for a variety of different undercarriages to shift the balance of the machine for

specific components, making the tractor more customizable for specialised applications.

Less noticeable but no less significant to the original D10 was its modular design. Major components of the tractor are manufactured separately and assembled at Building SS for a first test-run of the machine with all its systems connected and intact.

The modular design also significantly reduced downtime for common drivetrain repairs.

In the years since the D10 debuted, Caterpillar has created only one model that is larger and more powerful, the incrementally named D11, currently the top of the company line-up.

But the critical element that was born with the D10 — the elevated sprocket has given the track its distinctive shape and improvements to productivity, efficiency, ease of maintenance and durability.

“All of those things were dramatically improved with the elevated sprocket tractor,” Kenworthy said on a recent tour of Building SS as a finished D10 rolled off the line, destined for a customer in Russia. “This facility was built exclusively for what would become the family of elevated sprocket tractors.”



The modular design also significantly reduced downtime for common drivetrain repairs.

THE CAT D10 - MORE THAN JUST A TOURIST ATTRACTION

In the summer of 1977, word was spreading among the citizens of Montana that the world’s largest track-type tractor was being tested in the western part of the state. Scores of people came to see it work. And everyone who did gaped in amazement at the behemoth, a pilot model of the new Cat D10 Tractor.

It was called the second largest tourist attraction in Montana that summer, for its popularity was second only to Yellowstone National Park — one of the world’s greatest natural wonders.

The dozer was working on a highway project in western Montana. Truckers, tourists, and anyone else who’d heard of the Cat D10 — as well as others who had no idea what they’d come upon — pulled to the side of Interstate Highway 90 to watch the unbelievably large machine do its work. Spectators stood in awe of the new Cat D10, the largest, most modern, and most powerful tractor in the world. But even more impressive was what they couldn’t see: the mighty machine featured new design concepts that made it a full 50 percent more productive than its predecessor, the Cat D9.

From its beginning, the product development story was one of exceptional teamwork. The revolutionary new dozer represented the best efforts of hundreds of Caterpillar people and six years of work.

Research and development began in 1971. Prototype testing started in 1973 at the Peoria and Arizona Proving Grounds. Pilot models were built at the East Peoria Plant, and the final product was eventually announced to the world on September 13, 1977.

The pilot machine in Montana - one of 10 working in varied job conditions across the United States — was leased to Goodfellow Bros. Construction Co. It was part of a critical preproduction test. Goodfellow operators only had one complaint: it did not have a place for a lunch box. We took their advice and made a space for one in the eventual production models, which rolled off the line in 1978. After all, an operator needs a lunch...right?

In the crucible of the mountains, the D10 ripped rocks beyond previous standards. It dozed like nothing ever had before. It set records push-loading scrapers. Pilot machines across the country rapidly won enthusiastic endorsements from job superintendents, foremen, and operators at test sites.

Forty years later customers still find the Cat D10 an awe-inspiring and economical machine. Today, the D10 can still be seen on roadways, at dam sites, or in mines, doing demanding jobs all over the world. You might even see one on your next vacation.



PROCESS EXCELLENCE LEADS TO HIGH-HOUR MACHINE MILESTONES

MOTOR GRADERS REACH 100,000-HOURS

One more truckload per shift. The last mile from every tire. Every hour from every machine.

When it comes to getting more out of every machine, there are a number of variables to consider — from correct machine selection to ensuring operators are trained to use the correct techniques to following a proactive approach to maintenance.

Caterpillar defines Preventive Maintenance as high-frequency, fixed-interval, planned activities that include well-defined service routines, proactive defect detection and repair execution.

ACHIEVING HIGH-HOUR MILESTONES

By combining sound maintenance practices with good operating techniques, mines are having success in extending the lives of their machines and reaching high-hour milestones.

For example, a number of Cat® 24H Motor Graders in multiple locations around the world have recently reached 100,000 hours. Caterpillar and the Cat dealers who support these machines are celebrating with customers and recognizing the efforts that lead to this significant accomplishment.

Representatives from Caterpillar Global Mining and the motor grader product group recently visited Sangatta, Kalimantan, Indonesia, to celebrate this achievement with customer PT Kaltim Prima Coal (KPC) and the on-site support

team of Cat dealer PT Trakindo Utama. Three of KPC's seven 24H Motor Graders recently reached the 100,000-hour milestone.

KPC manages a mining area of over 90 000 hectares, including one of the largest coal mines in the world.

The Sangatta mine has a production capacity of over 50 million tonnes per year — more than 10% of Indonesia's annual production. In addition to Cat motor graders, the mine also operates more than 160 Cat trucks.

The 24H Motor Graders, delivered to KPC in January 1998, have accumulated over 107,500 hours each. They're part of a large fleet of Cat motor graders owned by KPC, including seven 24H models, seven 24Ms, 10 16Ms and eight 16Gs. All of the company's Cat graders continue to work heavy hours, says Caesar Tanquingcen, a Caterpillar applications representative for motor graders. The mine's fleet of 24H graders continue to deliver a higher-than-expected availability of 87.3%. "This achievement underscores the 24H reputation of being workhorses, long after they've left the Decatur factory floor," says Tanquingcen.

The high-hour models now boast a "100,000 Hours" sticker. "While that sticker makes the machine's milestone obvious, it's the world-class operations and maintenance practices of KPC, backed by 297 of Trakindo's best and brightest people, that make this remarkable accomplishment possible." The dealership conducts regular site assessments to seek out improvement opportunities in the areas of machine application, maintenance and repair, and overall support of the mine's equipment.

"While that sticker makes the machine's milestone obvious, it's the world-class operations and maintenance practices of KPC, backed by 297 of Trakindo's best and brightest people, that make this remarkable accomplishment possible."

KPC joins Alpha Coal West (Eagle Butte Mine) and Arch Coal (Thunder Basin Coal Company) as part of the elite group of customers whose 24H Motor Graders have achieved this impressive accomplishment.

"Truly remarkable accomplishments endure year after year and are made possible through daily process execution excellence," says Tanquingcen. "Examples of these types of remarkable accomplishments are rare. So when we see one, it is a big deal."

ELPHINSTONE, ORICA'S EXPLOSIVE PARTNERSHIP DELIVERS FIRST UNITS

ELPHINSTONE'S ADVANCED MANUFACTURING OPERATIONS IN NORTH WEST TASMANIA HAVE TEAMED WITH EXPLOSIVES GIANT ORICA LIMITED, TO DESIGN AND BUILD MOBILE UNITS TO DELIVER BULK EXPLOSIVES MORE EFFICIENTLY, TO ORICA'S GLOBAL MINING CUSTOMERS.

The Bulkmaster 7 units are being built at Wynyard. Elphinstone managing director Kelly Elphinstone said the company had 45 direct jobs associated with the product at this stage and was looking to almost double that in six to 12 months as production increased.

That would be another win for the fast-growing company, which had 68 employees in 2013 and now has 254.

The outlook for the Bulkmaster 7s appears to be strong. Kelly said a five-year supply contract for 100 units had been signed, with an order received for the first 20. The first two started operations at Fortescue Metals Group's Solomon mine in the Pilbara earlier in March. Orica Group Executive and President, Australia Pacific and Asia, Darryl Cuzzubbo said the early focus would be on their Australian operations.

The export of these units would follow, and there was some interest from Indonesia.

"Orica is a global leader in blasting innovation, and we're proud that our investment in technology is translating to new jobs in regional Australia," Mr Cuzzubbo said.

"We've combined Orica's expertise in blasting and knowledge of our customers' needs with Elphinstone's manufacturing know-how to create the next generation in explosives delivery system technology.

That's delivering improved productivity to our customers, a clear competitive advantage for Orica and, thanks to Elphinstone, new jobs in Burnie.

Orica executive

The federal government aided the project with \$3 million of Tasmanian Jobs and Growth Plan funding.

Kelly Elphinstone said the government had supported the project "the whole way".

Liberal Senator Richard Colbeck said continued investment in research and development and productivity gains kept Tasmanian manufacturing competitive in a very competitive global market.

Orica said the Bulkmaster 7 was designed to increase safety on site and lift productivity through increased flexibility and delivery rates of bulk explosives.



▲ **JOB AND GROWTH:** Liberal Senator Richard Colbeck, Elphinstone Managing Director Kelly Elphinstone, Orica's Darryl Cuzzubbo and Angus Melbourne and Elphinstone Executive Chairman Dale Elphinstone.



CALDER CONTRACTING PUT NEW CAT 326F TO WORK

Recently Northwest Tasmanian logging contractors Calder Contracting Pty Ltd took delivery of their fourth Caterpillar machine. The last machine delivered was a Caterpillar Model 326F equipped with heavy duty boom and stick, Talon fixed log grab and forestry guarding package, both fabricated by our William Adams' fabrication shop in Burnie.

Brief specs of the Cat 326F are as follows:

An operating weight of approximately 27 tonnes with a Cat C7.1 Tier 4 final ACERT engine rated at 152 kw (204 hp) gross power, equipped with a combination of proven electronic, fuel, air, and after treatment components. Applying these time-tested technologies lets us meet high expectations

for productivity, fuel efficiency, reliability, and service life.

The high-ambient cooling system features a fuel-saving variable-speed fan and side-by-side-mounted radiator and oil and air coolers for easy cleaning. Wider clearance between the two makes blowing off debris easy, which can help improve machine reliability and performance especially in the Forest Industry.

The 326F is used for loading plantation wood at Hampshire in Northwest Tasmania.

Tim and Emma Pyke are very happy with their recently purchased Cat machines and the major reasons they chose Caterpillar machines is the nearby Burnie branch and the support they receive from Caterpillar Finance Ltd.

BEAUMONT TIMBER HARVESTING PTY LTD



New Cat 326F Excavator and 545D grapple skidder operating on a landing west of Smithton.



OLDINA LOGGING PTY LTD MORE CATS WORKING IN THE FOREST

In early March 2017 Northwest Tasmanian logging contractors Oldina Logging Pty Ltd took delivery of another new Caterpillar machine, a 320D Series 2 FM harvester equipped with a reconditioned Waratah 622B harvesting head. The machine went to work in hardwood plantation near Yolla in Northwest Tasmania.

Brief specs of the Cat 320D Series 2 FM are as follows: an operating weight of approximately 29 tonnes with a 22" harvesting head, powered by a Cat C7.1 ACERT engine producing 110 kw (149 Hp) gross power, high wide undercarriage, purpose built forestry cabin with state of the art controls and Cat Product Link system.

Also on the site was a recently purchased Caterpillar 522B Feller Buncher equipped with a Caterpillar disc saw.





A GREAT COMBINATION - CATERPILLAR AND SATCO

JD Logging from Yarra Junction have recently taken delivery of their first Cat/Satco combination. The machine will be working in a native hardwood plantation for Vic. Forests.

Owner Jim Greenwood looked at several different machine and head options but the Cat 336FL with the big Satco 325T ticked all the boxes for machine balance, hydraulic flow, cooling capacity, fuel efficiency, and most importantly, service and parts back up from William Adams.

The 336FL joins a Cat 545D skidder and a Cat 324DL on the job.

Thanks to Jim and Chris for their loyal support.

MANUFACTURING - GOING BEYOND THE IRON

Close your eyes. Picture a manufacturing facility. What do you see? Is it a dark and dirty environment with employees following difficult processes with minimal help from equipment? Or is it a clean, bright and innovative setting with technology that is easy to use?

Manufacturing at Caterpillar has evolved significantly over 90 years due to advancements in automation and robotics. Manufacturing employees no longer just move things along a line with their hands – they solve problems on the job, coming up with new and better solutions.

Off the shop floor, Caterpillar is renowned for our high quality and durable machines, but we have also been leading in technology for decades.

We are focused on growing our service offerings, with an emphasis on digital-enabled solutions and aftermarket parts. With more than 500,000 connected assets, we have the largest connected industrial fleet in the world. During the course of our company's history, we have applied many cutting-edge technologies:

Data Analytics

Caterpillar provides technology and technology-enabled services that go "beyond the iron" by

connecting customers' entire fleet in order to monitor, manage and enhance their operations. These technologies allow customers to be more aware of how long a piece of equipment has been working and how healthy it is. They also:

- Improve grading accuracy.
- Measure weight to monitor productivity.
- Utilise on board camera systems and proximity detection systems so that operators can operate their machines from a remote location.
- Provide safety services that help locate employees on site to ensure safe interactions between machines and personnel.
- Identify fatigued employees.

Additive Manufacturing

Caterpillar is also focused on additive manufacturing, known as 3-D printing, and how to exploit 3-D printing technology as a main manufacturing method. As a result of advancements in 3-D printing, it will soon be possible to print a part right on the job site as a permanent solution. 3-D printing is also a valuable resource for prototypes and tooling as a cost-effective way to trial solutions that could not otherwise be tested without spending more money. In December 2015, Caterpillar opened the Additive Manufacturing Facility in Mossville, Illinois. It acts as a lab for engineers to learn on production-capable equipment and is set up as a mini-production facility with the ability to fulfil orders on production machines.

Autonomous Mining

Autonomous mining is another technological development that has helped address the dilemma that as mines move into more remote areas, it becomes even more difficult to find qualified people willing to operate equipment in those

environments. Offering autonomous vehicles that enable the operation of mining equipment without human operators in the cab reduces staffing costs and eliminates the need for operator training and staff relocation. Autonomy's video gaming feel may also attract a new generation of employees to work in mines.

"We take innovation seriously. We always have," Group President Rob Charter said earlier this year. He ended his address by talking about what makes Caterpillar stand apart from our traditional competitors and other startups competing for digital business in the construction industry. "...none of them have what we have: decades of understanding the industry and our customers' needs; the largest field population in the world and access to the largest connected fleet in the world; and the largest and strongest dealer network in the industry."

"We take innovation seriously. We always have," Group President Rob Charter said earlier this year.

PERKINS CELEBRATES THE PAST, EYES THE FUTURE

Perkins, originally founded in Peterborough, UK, in 1932, is one of the world's leading providers of diesel and gas engines. Although the company has been part of Caterpillar for two decades, Perkins has a rich and diverse history stretching back 85 years.

Caterpillar and Perkins joined forces in 1997, creating a global company and the world's largest diesel engine manufacturer – now leading the way in engineering technology.

A celebration event was held to mark the milestone, attended by media and Perkins distributors.

THE WILLIAM ADAMS APPRENTICE OF THE YEAR PROGRAM

The William Adams Apprentice of the Year program was held in December, and saw our Stage 4 Apprentices from across Victoria and Tasmania converge on our Clayton branch.

This event brings together our graduating Apprentices to celebrate their achievement of completing their Apprenticeship and to compete for the title of the 'William Adams Top Apprentice'.

During the week the Apprentices undergo the following exercises:

- Branch Manager Review (carried out prior to the event)
- Two theory knowledge tests
- Three online study courses
- SIS web skill test
- Create and deliver a ten minute presentation
- Three practical workstations simulating product troubleshooting/ field repair

We are very pleased to announce the following results for 2017:



▲ Graduating Apprentice class from left to right; Hayden Clark (Clayton), Adrian Wisth (Laverton), Campbell Grant (Laverton Trucks), Ryan Hammond (Burnie), Nathan Granger (Burnie), Nicholas Missen (Traralgon)



▲ Runner-Up Adrian Wisth and General Manager, Product Support, Adam Elphinstone



▲ Adam congratulating top Apprentice 2017 overall winner Hayden Clark (Hayden also won Best Presentation)



▲ Achievement Award Campbell Grant

We would like to congratulate this group of qualifying Technicians for their participation during the week, but more importantly their hard work over the past 4 years.

William Adams
Institute of Training



CORNER

1.

WAIT DELIVERS TRAINING TO TAS PORT SERVICES. TPS purchased a used tug earlier in 2017 and contacted WAIT to see what training could be provided on their Cat 3516 main propulsion engines. Training was scheduled for late October 2017, and in the meantime TPS had purchased the sister tug; one had been sailed to Hobart and the other to Launceston where William Adams' Launceston branch carried out top end rebuilds and inspected the cranks. Both units will have the engine work carried out and the super structures repaired and painted in Launceston.



3.

WAIT PROVIDES SERVICES TO OUR PARENT COMPANY, THE ELPHINSTONE GROUP. WAIT recently produced the technical training materials for the Railmax RMT14D and is in the process of preparing the technical training package for the new RMT15FL. The first machine was delivered in Tasmania and the second is heading into Queensland. WAIT will also be involved with preparing materials for the new Elphinstone underground support vehicles, the WR820 and WR810 concrete agitators.

2.

CAREERS PROMOTION: Ross Kelly, Business Manager for the William Adams Institute recently attended a schools' career day hosted by Kangan TAFE and presented to potential students on the apprenticeships and careers available in our industry. There were some 120 students from year 9; 45 students had opted to learn about the heavy vehicle industry and were spread across five presentations delivered. The other students were spread across other categories such as panel beating/ spray painting, hybrid vehicles, automotive mechanics and other such trades represented at Kangan.

POINT BARROW, ALASKA



Point Barrow, or Nuvuk, is a headland on the Arctic coast in the U.S. state of Alaska, 14 km northeast of Barrow. It is the northernmost point of all the territory of the United States. Because Barrow is located above the Arctic Circle, there are times of the year when the sun never sets, and other times when it never rises above the horizon. Instead of dipping below the horizon every day, during the summer the sun circles around the sky above the horizon.

Although Barrow is on the North American continent it is isolated from any other city. There is no road connecting Barrow and other places in Alaska. Travellers must take aeroplanes or ships to get there.

Mike Cook, CDI for Cat dealer NC Machinery, provided Level II training for eight operators for Point Barrow's new Cat D7E

Dozer and 14M Motor Grader. Walk arounds, maintenance, basic dozing and gravel road maintenance were covered in the training.

The primary application for the dozer is to maintain a seawall during the subsistence harvesting season of the bowhead whale. The operators were very impressed with its power-to-the-ground operation. Additionally the Motor Grader will be put to good use on roads in need of repair.

SOUTH EASTERN COALFIELDS – THAT'S SOME MINE !!

Steve Pope, Senior Marketing Training Consultant for Caterpillar, has been in India conducting training on the Cat 7495 Electric Rope Shovel. South Eastern Coalfields Limited purchased three 7495s for their Kusmunda and Gevra area mines.

SECL is the largest coal-producing company in India. Their coal reserves are spread over two states, and comprise of eighty nine mines! SECL has accelerated their production capacity at Kusmunda from 25 million tons to 50 million tons, and at Gevra from 50 million tons to 75 million tons.

In order to achieve this a fleet of shovels, wheel loaders, dozers and motor graders have been delivered.

With the support from Cat dealer GMMCo, Caterpillar Tinaja Hills Demonstration & Learning Centre and Global Mining, a team was put together along with Steve Pope to get operators up to speed on the 7495 Electric Rope Shovels.



GRANGE RESOURCES CONTINUES TO INVEST IN CAT CDI TRAINING

GRANGE RESOURCES OWNS AND OPERATES AUSTRALIA'S LARGEST INTEGRATED IRON ORE MINING AND PELLET PRODUCTION BUSINESS, AND IS LOCATED IN THE NORTHWEST REGION OF TASMANIA. THE SAVAGE RIVER MAGNETITE IRON ORE MINE, 100KM SOUTHWEST OF BURNIE, IS A LONG LIFE MINING ASSET SET TO CONTINUE OPERATION THROUGH UNTIL 2034.

William Adams has been providing Grange Resources Savage River Iron Ore Mine with ETS Level III operator certification for Off-Highway Trucks since 2004. The mine runs a mixed fleet of Cat Off-Highway trucks that range from 777Ds to 789Cs.

In September, 2017 Chris Munday (William Adams CDI), certified an additional 6 operators on the 777D, 785C, 785D and 789C Off-Highway Trucks for Savage River. This brings the total number of operators to have completed this training on-site to a total of 55.

The Savage River Mine is located on the rugged West Coast of Tasmania. Employees work a four days on, four days off schedule. This area of the West Coast has an average rainfall of approximately 80 inches per year and is a good test for operators and their machines.

The six operators that attended the 4-day course have more than 39 years of service under their belts at this mine site and it is considered a great achievement to become a Caterpillar certified operator. Two Safety & Training Officers were also in attendance, Nigel Rayner and Andrew Jones. Both completed this course previously in 2004.



▲ The new certified operators from Savage River are pictured from left to right: Ashleigh Shotton, Anthony Dewis, Michael McNab, Leslie Thorpe, Ashley Short, Lee-Anne Viney, and William Adams CDI Chris Munday



USING THE CORRECT TIER 4 ENGINE SHUTDOWN PROCEDURE IS VITAL TO MAXIMISING ENGINE AND EXHAUST AFTERTREATMENT COMPONENT LIFE.

There are two important strategies to the correct shutdown procedure:

1. Allowing the “delayed engine shutdown” function to complete its’ cycle
2. Allowing the Diesel Exhaust Fluid (also known as Adblue) purge cycle to complete.

The Delayed Engine Shutdown feature is dependent upon the programmed temperature threshold which prevents component failure caused by hot shut down or cold ambient conditions. As an example, shutting the engine down when the engine is too hot can cause premature failure of turbochargers and exhaust aftertreatment components such as the DEF injector.

Turning the ignition key to the “OFF” position causes the system to assess whether the engine DPF outlet temperature threshold is safe to shutdown or is above the configured temperature at engine shutdown which will require it to enter the programmed cool down period ensuring the engine will continue to run at idle speed until it reaches a temperature that is suitable for safe shutdown. The engine will then shut itself off.

The “STOP” position on the key switch is for emergency shutdown only. Turning the key to this position and holding it there will cause the engine to shutdown immediately regardless of what temperature it is at. Fault codes will

be logged to record the emergency shutdown has been overridden.

The Diesel Exhaust Fluid Purge Cycle removes the DEF from the DEF pump and lines and returns it to the tank after the engine is shutdown. It takes approximately 70 seconds to fully purge the system. It is important to let the purge cycle be completed before turning the battery disconnect switch OFF.

An amber “Wait to disconnect” lamp located next to the battery disconnect switch lights up when the engine shuts down, and remains lit until the purge cycle is completed. Do not turn off the disconnect switch while the lamp is lit unless an emergency exists. Once the amber lamp has gone out it is safe to turn off the disconnect switch. A fault code is logged if the purge cycle is overridden when the switch is turned off prematurely.

This is further explained in reference media YEGT3008 available from William Adams.

NOT ALL OUR MACHINE DELIVERIES ARE STRAIGHT FORWARD !!



This used Cat 336DL has been purchased by the Italian Antarctic Division, and is seen being prepared for shipment from Hobart.

As the Southern Ocean can be very wild, storage practices are critical.

The 336DL joins a large fleet of Cat equipment operating in the Antarctic by French, Chinese, Italian, USA and Australian authorities.



CERTIFIED POWERTRAIN REBUILD

WHAT IS A CATERPILLAR CERTIFIED REBUILD?

CAT® CERTIFIED REBUILD PROGRAMS HELP YOU BENEFIT FROM THE MULTIPLE LIVES DESIGNED INTO CAT MACHINES AND COMPONENTS AT A FRACTION OF THE COST OF BUYING NEW.

VALUE BEYOND THE REBUILD

The rebuild process extends beyond a piece of rebuilt equipment. The value of your equipment increases with warranties and coverage from Caterpillar – and the support of the largest dealer and parts distribution network in the world.

CERTIFIED REBUILD

New Parts Warranty on all replaced parts and your choice of extended powertrain coverage:

- 1 year or 6,000 service hours*
- 3 years or 5,000 service hours*

CERTIFIED POWER TRAIN - YOUR CHOICE OF EXTENDED POWER TRAIN COVERAGE:

- 1 year or 6,000 service hours*
- 3 years or 5,000 service hours*

*To confirm warranty coverage eligibility for your Cat machine, talk to your William Adams representative.

5 LEVELS OF REBUILD OPTIONS TO BEST SUIT YOUR CURRENT AND FUTURE REQUIREMENTS

1. CERTIFIED MACHINE REBUILD - GET THE MOST VALUE OUT OF YOUR MACHINE

With a Cat Certified Rebuild, you can recover all the performance and productivity of your original machine while benefiting from the latest engineering updates.

2. CERTIFIED ENGINE REBUILD - REBUILD YOUR ENGINE AND RECOVER PERFORMANCE

When you invest in Cat equipment, you're investing in durability, dependability and performance. And when you rebuild your Cat engine, you're maximizing that investment.

3. CERTIFIED MACHINE COMPONENT REBUILD - RESTORE THE LIFE OF YOUR COMPONENTS

Getting the most out of your machine means getting the most out of your power train. A component rebuild will restore your engine, transmission, torque converter, axle assemblies or final drives to like-new performance.

4. CERTIFIED POWERTRAIN REBUILD - RENEW THE PERFORMANCE AND PRODUCTIVITY OF YOUR POWER TRAIN

The heart of any piece of equipment is the power train. A rebuilt power train can improve performance, increase machine availability and greatly extend the productive life of your equipment.

5. CERTIFIED HYDRAULIC REBUILD - GET THE BENEFITS OF A FOCUSED REBUILD PROGRAM

You have options when it comes to renewing the performance of your equipment fleet—everything from complete machine rebuilds to rebuilds focused on your hydraulic systems.



One of Many Caterpillar Certified Rebuild Success stories.....

Williams Adams were recently engaged by one of Australia largest waste handling companies seeking machine rebuild options for one of their frontline Cat 836H compactors.

The machine had been in service since delivered new in 2006 and had operated for well over 23,000hrs with no major investment into lifecycle rebuilds. As to be expected in the tough waste handling environment, the machine was in serious need of some maintenance investment.

Williams Adams worked closely with our customer to explore the benefits of the various certified rebuild options and also completed a repair versus replacement analysis to allow our customer to make the best long term financial decision for their business.

With the decision made to proceed with the Caterpillar Certified Powertrain Rebuild option our Williams Adams Laverton facility got on with the job of dismantling the machine from the ground up, sandblasting and repainting the frame, rebuilding each component to Caterpillar's stringent Certified Rebuild guidelines and including all mandatory parts and component updates. This called for the re-hosing and re assembling of the machine through to completing all machine operational and functional testing prior to returning to site.

INTERESTING FACTS:

Time taken to rebuild machine:-

900+ man hours or approximately 3 technicians working for 8 weeks full time.

Rebuild Cost vs New:-

Approximately 50% of new machine cost and 4-6 month reduction in lead time.

Parts Consumed during rebuild:-

10,075 parts replaced over 1,797 individual part numbers.

Warranty:-

All replaced Parts and Labour comes standard with 12 months warranty. An additional 2 year / 4000 hour Power Train warranty was included in the rebuild, which provided additional peace of mind for our customer.

DEUTZ-FAHR LAND: HIGH-TECH “MADE IN GERMANY”

ONE OF THE WORLD’S MOST MODERN TRACTOR FACTORIES HAS COMMENCED PRODUCTION



After around three years of planning and construction time, the new tractor factory “DEUTZ-FAHR Land” started the production of high performance tractors from 130 HP on schedule in January 2017. The 6 Series, 7 Series and 9 Series tractors are manufactured here for the worldwide market. DEUTZ-FAHR now has one of the most modern tractor factories in the world.

A plot of 150,000 square metres adjacent to the existing premises was purchased for implementing the project. The L-shaped building, with a covered area of 42,000 square metres, revolutionises tractor manufacturing through the use of state-of-the-art technology in the areas of assembly and painting and for the hydraulics, electronics and chassis tests for quality assurance.



Together with the new customer centre “DEUTZ-FAHR Arena”, the overall investment of 90 million euros (A\$145 million) is the single largest individual investment in the company’s history.

Planning for the new factory began in 2013.

Perfectly synchronised factory logistics

A warehouse with 4,000 storage locations for large parts, and a small parts facility with 25,000 locations was integrated for supplying the production process. Logistics use proven elements of lean production.



READY FOR THE FUTURE

With the new factory, DEUTZ-FAHR sets a milestone in manufacturing technology and, also reinforces its global role in agriculture mechanisation. Said Lodovico Bussolati, SDF CEO: “The new factory is playing a crucial role in reinforcing the DEUTZ-FAHR brand in the global market.

The new manufacturing plant together with our modern and innovative tractor range will speed up the growth of DEUTZ-FAHR”.

Quality in the entire process

In addition to the individual quality checks at each installation step, in-line hydraulic testing and a pneumatic test take place at the end of powertrain production. Up to three powertrains can simultaneously be tested here for full functioning and tightness at a hydraulic operating pressure of 220 bar. Only once this thorough check is completed, the tractors move to the paint shop and then to final assembly.

After final assembly, the computer-controlled final acceptance of the completed tractor takes place. All functions of all installed components are tested individually for each tractor, while engine and transmission are run through different speeds and load conditions. The front axle and the front axle suspension are tested in the final phase, which is unique in tractor manufacturing.

Painting the powertrains to state-of-the-art standards

With an investment of 20 million euros (A\$32 million), it is the largest individual investment within the factory. Here, the powertrains move through a mostly automated painting process which ensures the highest level of quality. After manual masking (protecting selected components through targeted covering and closing off), the powertrains are cleaned by robots to remove oil, grease and contaminants. Two employees apply the primer and the subsequent top coat is applied by special paint robots.

This process guarantees that all powertrains pass the standardised salt water spray test up to 720 hours without signs of corrosion. As a comparison: car manufacturers usually work with 240 hours in the salt spray test.

Combined heat and power plant for power supply

DEUTZ-FAHR Land has its own power supply. The combined heat and power plant generates the heat required for drying in the paint shop as well as the electricity for the entire production process. Production is designed so efficiently that the excess heat is used for heating the workshops and any electricity that is not needed is fed into the public grid.

908M JACK OF ALL TRADES

Craig Dixon says the best part of his job as a farmer is in the summer months. “Enjoying the hot summer days, when it’s warm and dry, and knowing that everyone else is stuck in an office.”

But summer or not, work at Willow Farm never stops. Dixon runs 750 head of cattle on the family farm near Woodhall Spa, in the centre of Lincolnshire. Primarily dairy, it’s a constant operation – 24 hours a day, seven days a week, 365 days a year.

“Dad came here 65 years ago,” explains Dixon, “when he bought his first 100 acres having moved on from a tenanted farm. He only went into dairy because he needed more money to pay the mortgage. Willow Farm’s been in dairy ever since, except now, we’re farming 750 acres.”

The farm is always busy. Keeping the yards clean, scraping slurry, feeding the cattle. It never stops. “Everything is important, every day,” Craig says. “Our biggest challenges are not breaking down, keeping the flow of cash and everything else going, and not trying to do too much at once.”

Understandably, equipment plays a big part in that. Craig remembers when the farm hadn’t yet fully invested in mechanisation, and seemingly everything was done with hard, physical labour. Now, everything’s handled by a machine – whether pulled and powered by a tractor, or moved around by a telehandler or a wheel loader.

The Solution

Most farmers have a favourite, or most dependable, piece of machinery. For Craig, it’s the farm’s Cat 908M Compact Wheel Loader. “It’s our main machine for the day-to-day running of the farm. It does everything, from mucking-out, feeding the cows, moving stuff around, construction – you name it, it’s probably done it at some stage.”

Craig reckons the 908M clocks up nearly eight hours every day. That’s between 1700 and 1800 hours a year.



“It’s a far superior machine in life expectancy, spare parts availability, ease of servicing – but more than all of that, it’s a pleasure to drive.”

Manoeuvrability, lift capacity and power-to-weight ratio are some of its stand-out features, enthuses Craig. “The all-round visibility when sat on the seat – you can see right round the machine. That’s so valuable when you’re working in tight, confined spaces.”

“It’s actually our second 908M. It still does the same job as it did when it was new. There aren’t very many machines you can say that about when it’s showing 19,500 hours.”

The Results

“We’ve had other machines in the past, but nothing compares to the Cat,” says Craig. “We don’t need to spend huge amounts of money on its maintenance, despite the fact we use it every day of the week.”

“We haven’t had any issues since the machine came new. Actually, just the one – but it was ironed out so quickly we hardly noticed. And we’ve had none since, other than general wear and tear in the areas you’d expect. Our Cat® dealer is very good, as is the parts supply, which are normally here next day.”

Friend, colleague, even a competitor – Craig says he wouldn’t hesitate to recommend the machine. “If they wanted a machine to do the job, and to do the job right, then yes – I would recommend the Cat.”

AG NEWS



Trevor Chalk, from Boat Harbour on Tasmania’s north west coast taking delivery of his new Same Explorer.



David & Joshua Harvey run a large beef farm on King Island, and are pictured taking delivery of their first Deutz tractor, an M600.



John Hawks from Kangaroo Ground, north east of Melbourne, alongside his new Gallignani 6000 Baler.



Cattle farmer **Barry Bourke of Chiltern** recently purchased a new Deutz 310 tractor and is extremely happy with it. Barry spent considerable time researching tractors of this horsepower range and ultimately settled on the Deutz 310.

Barry determined that the Deutz 310 was the best all round machine that also represented the best value for money and included a smooth Tier 3 engine that produces considerably more torque than its rivals.



Long time William Adams’ customer, **Frank Folino** taking delivery of his new Deutz 5120C tractor for his farm in Warragul. Nice to have you back Frank !!



Ben Chilcott, pictured with his new Howard AH400 rotary hoe and Deutz 7250 combination.

Ben is a local contractor based on the northwest coast of Tasmania.



Pictured is **Norm Weir** with his purchase of a new Same DT 100 Tractor fitted with an Agrolift Loader. Norm runs a grain and sheep farm at Dumosa in Northern Victoria.

Norm was very impressed with his new purchase and was looking forward to putting it through its paces.



Steve Dickinson, pictured along with daughter Jade taking delivery of their new Deutz 5120C tractor.

Steve is a contractor from Healesville, and the 5120 is his second Deutz tractor, which Steve chose based on its value for money.

A1 ADD TO CAT PAVER FLEET

A1 Asphaltting based in Drouin (Gippsland) recently took delivery of a new Cat AP355F tracked paver. Clayton Rees and the crew wasted no time putting the new paver to work patching roads on Phillip Island.



GIPPSLAND PORTS PARTNER WITH CAT!



Gippsland Ports are based in Lakes Entrance, in eastern Victoria and recently took delivery of a new Cat 906K Wheel Loader. It is pictured here with a Sydney - Hobart yacht that sought refuge during the running of the 2017 Blue Water Classic, being packaged up to be shipped overseas for repairs.

Late last year Gippsland Ports also took delivery of a new Cat powered hopper dredge called the "Tommy Norton". This is used to keep "The Entrance" open so the local fishing fleet and recreational boats can access Bass Strait from the Gippsland Lakes. The Tommy Norton has two Cat 600 HP C18 propulsion engines, a 340 HP C12 bow thruster and 3 Cat generator sets on board.



RANGEDALE DRAINAGE CHOOSE CAT

Rangedale Drainage Services based in West Melbourne have always been a buyer of competitive equipment but recently William Adams was awarded orders for a new Cat 305.5E 2 Hydraulic Excavator and a 259D CTL.

This is the first time that Rangedale had purchased Caterpillar machines.

To date, both machines are going well; operators comment that they are really enjoying the Cat product and that the cab comfort was far superior to what they had experienced previously. Precise, effortless controls were features that had made an immediate impact on operator satisfaction.



A GREAT TASMANIAN SUCCESS STORY – INTERNATIONAL CATAMARANS



The company builds vessels using aluminium construction, wave-piercing and water-jet technology. Vessels have been constructed up to 130 metres in length and with cruising speeds up to 58 knots (107 km/h).

Incat is a manufacturer of high-speed craft (HSC) catamaran ferries. It's greatest success has been with large, sea going passenger and vehicle ferries, but it has also built military transports and since 2015 it has built smaller river and bay ferries. Incat's shipyard is on Prince of Wales Bay at Derwent, Hobart. The facility incorporates more than 70,000 m² of undercover production halls, with two dry-dock areas capable of accommodating up to six vessels under construction.

Incat was founded by current Chairman, Bob Clifford, AO, in 1977.

The company builds vessels using aluminium construction, wave-piercing and water-jet technology. Vessels have been constructed up to 130 metres in length and with cruising speeds up to 58 knots (107 km/h).

Since the first 74 metre high speed passenger and vehicle ferry was delivered to the UK in 1990, there has been a gradual but constant incremental increase in vessel waterline length and deadweight, while still maintaining the high speed that Incat is famous for. Payload has increased significantly as the vessel length has increased.

Incat craft have universal appeal offering fast transit, fast turnaround in port, flexibility and versatility in vehicle deck layout, passenger comfort, shallow draft, minimal crewing numbers and reliable and economic operation.

A great diversity of craft has been built, from yachts to large Wave Piercing Catamarans. Incat vessel generations have progressed through to the current designs - 70 metre, 85 metre, 98 metre, 112 metre and 130 metre. Diversification within this range is evident with variance in passenger numbers, vehicle and freight capacity and configuration.



▶ Bob Clifford (at the helm) alongside great mate Roger French (former Director, William Adams) and Steve Braithwaite (former Sales & Marketing General Manager, Hastings Deering), during an afternoon on the Derwent River, November 2017.

▶ The broader group alongside the "baby Incat".

ELPHINSTONE FUNDING - NORTH WEST REGIONAL HOSPITAL

North-West patients requiring lung testing will no longer have to travel to Launceston for treatment thanks to a generous donation by the Elphinstone Group.

The Elphinstone Group and the state government will jointly fund \$250,000 of new medical equipment for the North-West Regional Hospital.

The equipment will allow the hospital to establish a Lung Function Laboratory where doctors can diagnose and monitor a range of illnesses.

The donation will also fund a new echocardiogram machine to improve cardiac testing and reduce patient trips to Launceston.

Elphinstone Group founder Dale Elphinstone said he and his wife Cheryl made the donation to give back to the community.

“We’ve grown up in and been very well supported by this community and have a lot to thank this community for,” said Dale Elphinstone.

“We want this community to have the best care possible and there really isn’t any reason why they shouldn’t.”

More than one hundred patients received government assistance in the past 12 months in order to travel to Launceston or Hobart for lung testing.

Mr Elphinstone thanked the Liberal Government for matching his donation to buy equipment “that will save a lot of people travelling to Launceston or Hobart for services that we would really like to have here on the coast”.

Deputy Premier Jeremy Rockliff thanked the Elphinstone Group and said the donation would be “warmly welcomed

by North-West Coasters” and would “have such a positive impact”.

“The Tasmanian Government acknowledges and is very grateful for the investment from the Elphinstone Group in health care on the North-West Coast, including the pivotal role played in establishing the North-West Cancer Centre, with the local service meaning there are now 8000 fewer trips into Launceston each year for routine radiology treatment,” Mr Rockliff said.

“This philanthropy and support has improved the lives of many and this new commitment is a further example of true generosity and community spirit.”

The establishment of the Lung Function Laboratory was also made possible by the 2016 recruitment of a permanent respiratory physician at the North-West Regional Hospital, Dr George Mabeza.

The government will now work with Dr Mabeza and local technical expertise to get the new services operational as soon as possible.

Mr Rockliff said the new services “aligned with the One Health System Reforms, providing care closer to home and reducing unnecessary travel”.

Note: Article as printed in The Advocate – Saturday 3 February 2018.



▲ Cheryl and Dale Elphinstone with Liberal Braddon MHAs Roger Jaensch and Jeremy Rockliff at the North-West Regional Hospital.

ONE MAN’S JOURNEY TO GEELONG – HALF IRONMAN THAT IS !!



Authored by Matt Allen
IS Service Desk Manager, William Adams

FOR A LOT OF US, FITNESS IS A PART OF OUR DAY TO DAY LIVES, WHETHER THAT BE WALKING ON OUR LUNCH BREAKS, RIDING A BIKE TO WORK, SPENDING TIME AT THE GYM OR RUNNING FOR PEACE OF MIND. IT’S MORE THAN JUST GETTING UP AND FINDING SOMETHING TO DO. IT’S A PASSION, THAT MANY OF US INTEGRATE INTO OUR LIVES.

Last year I was searching for a new challenge, something I had never done before. I wanted to do something big, something that would push my limits, not just physically but mentally; I decided I wanted to compete in my first Half Ironman (1.9km swim, 90km ride, 21.1km run).

Our William Adams’ Managing Director, Eddy Kontelj told me how much he admired the challenge that I had set for myself and expressed that it’s something that he has always wanted to do. I asked Eddy “Why not just do it? No time like the present.”

Later that month Eddy agreed to take up the challenge with me. It meant a lot to me that I would have someone I know to share the experience with.

As the days grew closer to the event the training increased rapidly, training 2 sometimes 3 times a day, and weekends

were consumed by open water swims, countless hours at the velodrome and running at any park I could find.

It’s now the day before the race and I am feeling very confident as Eddy and I head down to the event with our bikes to make sure everything is mechanically perfect and complete our check in. It’s too late to back out now. After check in we head off for a coffee and relaxed a little then decide to scout out the bike course before retreating for an early night.

Race Day.

We assess the swim course and then wait for the horn to sound. The horn sounds and before you know it the once crystal-like water is broken and churning and you are right there in the middle of it. Nothing can really prepare you for the first big open water swim, people swimming into and over you, and far from being the relaxing swim you are so used to, this is now complete chaos. Out of the water and into a quick transition, and time for the bike.

Towards the end of Lap One, you begin to make your way back to town and you can hear the sounds of the crowd, bells ringing and people cheering as you make your way into Lap Two.

Lap Two complete and onto the run.

The run was the most scenic part of the course but by far the most painful part of the journey. As you make your way onto the red carpet to the finish line you forget about all the pain and find extra energy you didn’t know you had, and push that little bit harder to get that photo finish and meet up with the people who are there supporting you, your friends and your family to share what you have just experienced.

Doing the best you can is relative and occasionally we need to remind ourselves that doing the best you can do is the best you can do on the day.

I am proud to have shared this opportunity and experience with Eddy and thank all our supporters, family and work friends for cheering us on and being there through this journey.

Congratulations to Matt and Eddy from all your pals at William Adams – you should be very proud of your efforts.



▲ Matt, left, with Eddy- Pre race nerves?

Norris Plant Hire

Norris Plant Hire, a well established construction company based in Geelong, pictured taking delivery of their first new Cat Motor Grader, a Cat 12M. William Adams' John Merlo, pictured with Brian Muller (right), new 12M operator.



Colac Cement

Colac Cement take delivery of a new Cat 305E, their first mini excavator purchase, designed to help deliver a wide scope of work for them from installation of cattle underpasses, to pits and drains. This purchase has been complemented by a new Cat 259D to be delivered soon after the 305E.



432F2 to RTL

Pictured left to right, Shane Steer, Tim Hosie and Scott Clare. The new Cat 432F2 does various general construction and maintenance tasks at the RTL Mining and Earthworks operations in the Latrobe Valley.



DE Quarries,

DE Quarries, located in Skipton in western Victoria recently took delivery of a new Cat 972M sales loader. Fitted with a 5.7m³ Performance Bucket, full Auto Shift Transmission with lock up converter and Cat Payload Measurement System (PMS), David Eldridge and his team couldn't wait to put it to work.

Pictured: DE Quarries Director, David Eldridge (left) and proud operator, Brad.



Piave Premix Concrete New Cat 924K Wheel Loader

Long term William Adams' customer, Piave Premix Concrete recently took delivery of a new Cat 924K Wheel Loader to operate in their concrete plant in Port Melbourne.

John Merlo worked with all the site operators on delivery, carrying out a detailed machine induction showing the operators both daily checks and operating techniques to help maximise the machine productivity.

We would like to thank Louis, Maurice and Michael for their continued support.

Prior Contracting

Glenn, Kye and Leigh from G & T Prior Contracting, Kilmore recently took delivery of their new 301.7D and were keen to put it straight to work alongside it's older brother, a Cat 313FL, which was delivered in April last year. Thank you to the Prior family for your continued support.



Ausdecom

Sam McKellar from Ausdecom recently chose a pair of new Cat 730C2 Articulated Trucks to satisfy the group's growing equipment needs.

The new CMPD (Colour Multi-Purpose Display) allows the operator to count loads per job or site, and provides real time feedback to the owner. Built in safety features like the CMPD Incorporated Review camera, maximum speed limiter and wide angle mirrors for excellent visibility make the 730C2 the truck of choice.



Shire of Southern Grampians

The Shire of Southern Grampians, based in Hamilton in Victoria's south west, take delivery of a new Cat 926M Series Wheel Loader, the first to be delivered in this class with the Tier 4 Final compliant Cat C7.1 diesel engine. Extremely low sound levels, a spacious cab and intuitive controls make the 926M an ideal machine for varied local government duties.

